

REMARKS/ARGUMENTS

Claims 1-11 stand rejected in the outstanding Official Action. Claim 11 has been cancelled without prejudice, claims 1, 6 and 8-10 amended and newly written claims 12 and 13 offered for consideration. Therefore, claims 1-10, 12 and 13 are the only claims remaining in this application.

The Examiner's indication of PTO acceptance of the previously submitted formal drawings is very much appreciated. Additionally, the PTO consideration of the prior art in Applicants' previously submitted Information Disclosure Statement is appreciated. Applicants note that the reference to U.S. Patent 5,248,698 to Jenkins was a typographical error and that U.S. Patent 5,428,698 issued to Jenkins is already of record (cited in section 8 of the outstanding Official Action). Therefore, this reference has clearly been considered by the Examiner.

Applicants note that the present application is a national phase entry of PCT Application PCT/GB03/04723. The Patent Office has confirmed its receipt of the International Application of which the present application is the National Phase entry with the formal Notice of Acceptance of Application mailed 02/07/2006. Thus, pursuant to the PCT Treaty, the Patent Office has acknowledged constructive receipt of the certified copy of the priority document submitted to WIPO in this case. Applicants query the Examiner as to why priority under 35 USC §119 was not acknowledged under section 12 on the Office Action Summary Sheet. Applicants believe that in view of the PTO acknowledgment of receipt of the copy of the International application, boxes "12", "a" and "3" should be checked on the Office Action Summary Sheet.

Claim 11 stands rejected under 35 USC §102 as being anticipated by Smith (U.S. Patent 7,042,631). Claim 11 has been cancelled without prejudice in favor of newly written claims 12 and 13. Therefore, the anticipation rejection of claim 11 has been obviated.

Claims 1-10 stand rejected under 35 USC §103 as unpatentable over Jenkins (U.S. Patent 5,428,698) in view of Smith. The Examiner's admission that "Jenkins et al. does not describe a means for varying the cross-sectional dimensions of a portion of the fundamental waveguides" is very much appreciated.

Moreover, it is noted that Jenkins teaches away from the use of a varying cross-section to adjust phases in the fundamental waveguides. Instead, Jenkins teaches the use of electro-optic phase shifters located within the waveguide to accomplish this function. Therefore, acknowledgment that Jenkins specifically teaches away from Applicants' claimed invention would be appreciated.

The Examiner suggests that Smith describes a phase shifting hollow waveguide having a variable cross-sectional dimension. Applicants have limited independent claims 1, 9 and 10 to the fact that Applicants' means for varying comprises a means for linearly translating both side walls of at least a portion of one of the waveguides without substantial distortion. At best, Smith discloses "compression" of a waveguide, but there is no disclosure of linear translation of both side walls without distortion as disclosed in Applicants' specification at page 8, line 24 and page 13, lines 9 and 10 and as claimed in amended independent claims 1, 9 and 10.

Therefore, as noted above, Smith fails to teach Applicants' specifically claimed means for varying and Jenkins would lead one of ordinary skill in the art away from any means for varying the cross-sectional dimensions. Therefore, not only does the combination of the Jenkins and

Smith references fail to teach Applicants' claimed subject matter, Jenkins would actually lead one of ordinary skill in the art away from Applicants' invention.

Additionally, the Examiner provides no "reason" or "motivation" for combining the Jenkins and Smith references in the manner of Applicants' claim. Moreover, the Examiner provides no reason as to why one of ordinary skill in the art would choose the Smith means for varying and ignore the Jenkins means for varying and then modify the Smith means for varying to linearly translate both side walls without substantial distortion.

The Official Action does not establish a *prima facie* case of obviousness under 35 USC §103 as required by the Court of Appeals for the Federal Circuit and therefore any further rejection thereunder is respectfully traversed.

Applicants have submitted newly written claims 12 and 13 directed to a beam splitter device and a combiner device which are portions of the hollow core optical router set out in Applicants' claim 10. While claims 12 and 13 are not limited to the specific manner in which the cross-sectional dimensions are varied, the recitation of a number of output waveguides greater than 2 which are optically coupled are simply not shown in the prior art, at least where one of the output waveguides has the more general means for varying the cross-sectional dimensions. Accordingly, entry and consideration of newly written claims 12 and 13 is respectfully requested.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that remaining claims 1-10, 12 and 13 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a

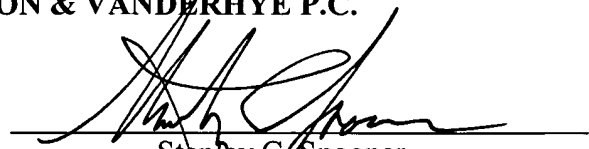
JENKINS et al.
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brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact Applicants' undersigned representative.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____


Stanley C. Spooner
Reg. No. 27,393

SCS:kmm
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100